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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,743	07/09/2003	Tong Wei Hua	CS02-010	1836

7590 07/21/2005  
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28 DAVIS AVENUE  
POUGHKEEPSIE, NY 12603

EXAMINER

NOVOSAD, JENNIFER ELEANORE

ART UNIT	PAPER NUMBER
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3634

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/615,743

Applicant(s)

HUA ET AL.

Examiner

Jennifer E. Novosad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2005 and 09 May 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-10 and 21-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,4-9,21 and 25-30 is/are rejected.  
7) ☒ Claim(s) 10 and 22-24 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

This final Office action is in response to (a) the amendment filed January 10, 2005 by which claims 1, 4, 5, 7-10, and 21-30 were amended and claims 2, 3, and 11-20 were canceled; and (b) the election filed May 9, 2005.

#### ***Election/Restriction***

Applicant's election with traverse of Group II, i.e., claims 21-30, in the reply filed on May 9, 2005 is acknowledged. The traversal is on the grounds that "the field of search must necessarily cover both the method class/subclass and products class... The fields of search for the Group I and Group II inventions are clearly and necessarily co-extensive". This is found persuasive and hence all claims have been examined on the merits, as follows.

#### ***Claim Objections***

Claim 26 is objected to because it appears that "substrate's" should be changed to --substrates--. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4-9, 21, 25, and 27-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 1 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: between the upper entrance, the lower opening, the partitions and the panels. *Similarly*, claim 1 omits structural relationship between the necked portion and the channel (see last two lines of claim 1 and lines 16-17 of claim 21), i.e., the channels have not been properly set forth as having a necked portion. This rejection is also applicable to the surfaces and the channels in claim 27.

The language of the recitation "is disposed on an upper side of each channel" in lines 10-11 of claim 1 renders the claim indefinite since it appears that a term or phrase is missing and thus the structural relationship of the elements is unclear.

Claims 4 and 7 are rendered indefinite since the structural orientation of "forward" is unclear.

Claims 5, 6, and 7 recite the limitation "the supports channels". There is insufficient antecedent basis for this limitation in the claims.

Claims 8 and 28 are rendered indefinite since it is unclear whether the "symbol" in line 2 is an actual symbol, whether it is underlined, etc. and thus the metes and bounds of the claims cannot be properly ascertained since it is unclear what the claim is setting forth. *Further*, claims 8 and 28 are also rendered indefinite since the recitation "highly stressed edges" appears to contradict the recitation "stress free containment" in claims 7 and 27, respectively.

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Claim 9 recites the limitation "said bottom". There is insufficient antecedent basis for this limitation in the claim. *Similarly*, "said stepped bottom" in claim 29 lacks proper antecedent basis in the claim.

The term "easily" in claim 21 (see line 16) is a relative term which renders the claim indefinite. The term "easily" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The recitation in claims 25 and 30, renders the claims indefinite. *In particular*, a substrate is not an element of the claimed device and it is improper to seek to define claimed structure based on a comparison to some unclaimed element. In this case, the boundaries of the claim cannot be properly ascertained because one would not know whether their device infringed the instant claim until someone else later added a substrate. *Accordingly*, the features of the device, itself, must be defined instead of relying upon a comparison with an ascertained element.

#### ***Allowable Subject Matter***

Claims **1** and **21** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and claims 4-9 and 25-30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and claims 10 and 22-24 are objected to as being dependent upon a rejected base claim.

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***Response to Arguments***

Applicant's arguments, see page 3, filed January 10, 2005, with respect to the Whalen reference have been fully considered and *in view of the amendments to the claims* are persuasive.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

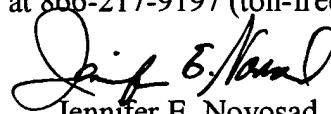
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer E. Novosad whose telephone number is 571-272-6832. The examiner can normally be reached on Monday-Thursday, 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard E. Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer E. Novosad  
Primary Examiner  
Art Unit 3634

July 19, 2005